

RESEARCH OUTPUTS / RÉSULTATS DE RECHERCHE

Universal Service

Cheffert, Jean-Marie

Published in:

Beyond Competition: Broadening the Scope of Telecommunications Policy

Publication date:

2000

Document Version

Publisher's PDF, also known as Version of record

[Link to publication](#)

Citation for pulished version (HARVARD):

Cheffert, J-M 2000, Universal Service: a conceptual approach. in *Beyond Competition: Broadening the Scope of Telecommunications Policy*. VUB Press, Brussels, pp. 157-178.

General rights

Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

- Users may download and print one copy of any publication from the public portal for the purpose of private study or research.
- You may not further distribute the material or use it for any profit-making activity or commercial gain
- You may freely distribute the URL identifying the publication in the public portal ?

Take down policy

If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.

info

ISSN 1463-6697

The following article was published in **info** Vol 2, No 3, June 2000

© 2000 Camford Publishing Ltd

For more information:

<http://www.camfordpublishing.com>

conditions of use

Single copies of this article may be printed for personal use as allowed by national copyright laws. Permission of the publisher/copyright holder is required for all other uses.

article:

universal service

some observations relating to future european debates

Jean-Marie Cheffert

The universal service issue is one of the concerns of the European Commission's 1999 Review. Several questions, such as the extension of the scope and the funding of universal service, are raised in this article. This contribution first provides a framework identifying the logic of the universal service policy. Several proposals are then made, some of them going beyond the Commission position. These proposals are not focused on the question of the scope of universal service: they are related to some practical and sometimes neglected questions. The article suggests not to rely on the subsidiarity principle in some of these practical matters and shows that too much subsidiarity could damage European competition and could prevent member states from having effective tools in order to perform their universal service policy.

Jean-Marie Cheffert is professor at the University of Namur, Belgium, and a member of Centre de Recherches Informatique et Droit (CRID), Rempart de la Vierge 5, B-5000 Namur, Belgium (email: jean-marie.cheffert@fundp.ac.be).

An earlier version of this article was presented at a colloquium on the 20th anniversary of the Centre de Recherches Informatique et Droit (CRID), Namur, Belgium, 9 November 1999.

Just as the telecommunications sector is undergoing a process of liberalization, the concept of universal service has made a remarkable reappearance. This policy enables the sector to open up to competition, while guaranteeing regulation of the market via a monitoring policy.

Born under a sign of consensus, the concept is now passing into fact in Europe: member states have opened their telecommunications markets up to competition and possess the legal tools which can guarantee, in voice telephony (the current scope of universal service), a service of quality, available to all at an affordable price.

However, the debates linked to universal service policy implementation are not closed. Thus, just before the adoption of a new Directive bearing exclusively on this theme, the 1999 Review poses a series of questions.² Should we extend the scope of universal service, an essentially evolutionary concept, and if so, according to what criteria? How do national funding schemes function? Can we, in Europe, take the idea of affordability further?

From reading the 1999 Review, the debate seems primarily, though not exclusively, to focus on the scope of the universal service. The review takes as its departure point the idea that member states themselves may, within the current framework, and respecting the principles of transparency, non-discrimination and proportionality, draw up the actual schemes whose major lines are defined in the Communication of 27 November 1996.³

If we want an effective universal service policy, and if we want the debate on its scope to make sense, it is necessary to look more closely at the particular modalities relating to the practical organization of this policy. Member states have perhaps been left too much room to manoeuvre with regard to some practical issues such as designation and remuneration of operators and funding policy. Some precise rules within these areas would surely improve the efficiency of universal service policies, without necessarily withdrawing the authority of member states to engage specifically in national policy making. In other words, the essentially evolving debate on scope, if it is to avoid becoming vacuous, must involve a debate on the system itself.

Universal service policy

The opening up of the telecommunications sector to competition has the same objectives of quality, availability and affordability as are targeted by universal service policy. Yet, despite this, the telecommunications sector retains its particularity. It is a sector of considerable social importance: it includes essential services and it is also the bearer of those political expectations symbolized by the term information society. The telecommunications market has, furthermore, a particular structure: it is naturally segmented, and its technology tends to favour a concentration of companies. The sector is therefore accompanied by a policy of safeguard: universal service policy.

The 26 February 1998 Directive defined the current scope of universal service.⁴ It covers public and private voice telephony, directory services and some reductions in favour of disabled users and people with social needs.⁵ The various elements of this policy may be financed from within the telecommunication sector itself. However, for various

1. The author has developed some of the ideas presented in this article in greater detail in 'Service Universel, Concurrence et Télécommunications' (Universal service, competition and telecommunications), Cahier du CRID No 15, *Story Scientia*, 1999.

2. The 1999 Communications Review: Communication from the Commission to the European Parliament, the Council, the Economic and Social Committee and the Committee of the Regions COM (1999) 539.

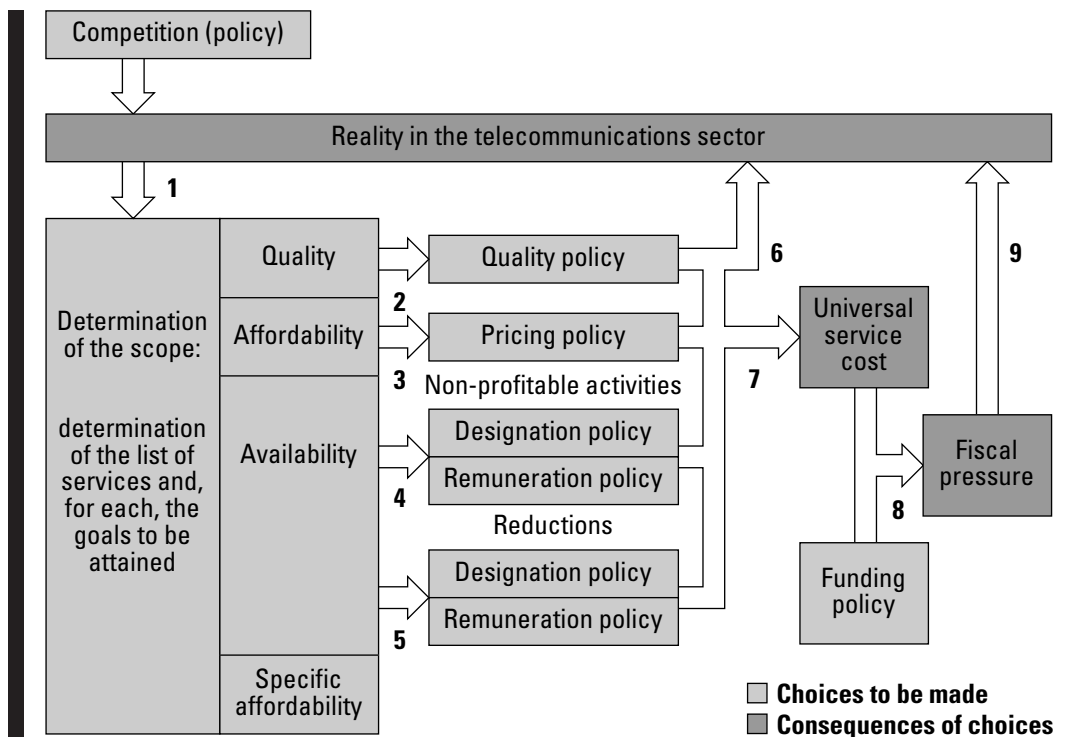
3. Commission Communication on Assessment Criteria for National Schemes for the Cost and Financing of Universal Service in Telecommunications and Guidelines for the Member States on Operation of such Schemes COM (96) 608, 27 November 1996.

4. Directive 98/10/EC of the European Parliament and of the Council of 26 February 1998 on the application of open network provision (ONP) to voice telephony and on universal service for telecommunications in a competitive environment, OJ, 1-4 April, 1998.

5. Reductions for schools, libraries and hospitals are excluded from this scope.

societal reasons, member states may decide to vary the scope of universal service policy (see relation 1, Figure 1). The Directive says that ‘Member States may impose additional requirements concerning the provision of telecommunication services... Such additional requirements... may not be financed from a mandatory contribution by market players’. It is important to understand that the universal service scope defined in this Directive merely identifies the policy which may be financed from *within* the telecommunications sector itself.

Figure 1: Universal service policy.



To achieve the objectives of quality, availability and affordability in the services under consideration, member states enact the policies shown in Figure 1: a price policy, a quality policy, the organization of non-profitable activities (the geographical component of universal service) and the establishment of preferential tariffs (the social component of universal service). These policies have a direct impact (see relations 6 and 7, Figure 1) on the telecommunications market; they also represent a cost: operators providing these services are reimbursed at a fair, which means non-discriminatory, price. The funding policy (mandatory contributions by the market players) will finance this cost. Such fiscal pressure on the sector will, however, in turn influence the market (see relation 9). Prices will go up and consumer behaviour will be affected.

The different areas – identified in Figure 1 – of universal service policy must be organized with respect to the competitive environment. If competition acts as a constraint on universal service policy, it is also a lever: market forces can be used to better guarantee the attainment of the targeted goals. We may already note that the review, by encouraging

the development of mechanisms where 'play or pay' is implemented, clearly takes this perspective: use of competition is suggested in the process of designation of operators who are to supply universal service.⁶ Pushing this idea of a linkage with competition a little further, it seems that other areas of universal service policies can be analysed and discussed in this light.

Determining the scope of universal service

When determining the scope of universal service, society is confronted with its responsibilities. By means of arbitration, goals are balanced and priorities defined. This is clear in cases where financing comes from sources external to the sector: national and regional budgets are limited and a universal service policy finds itself in competition with other needs and policies. This arbitration should also precede cases where financing is from within the sector. Basically, although such financing appears less onerous for society as a whole, this is merely an illusion. If the sector is solicited, via mandatory contributions, as a source for the funding of universal service, an eviction effect may be observed: sector prices will go up and consumption will go down. Allowing universal service policy to be dictated by the effect of a single trend is therefore clearly to be avoided: the real needs of society should be identified. One can therefore understand why the review pleads for periodic review on societal needs and proposes to define some precise criteria with a view to extending the scope of universal service.

We must note that a universal service policy, when supported by the budgetary resources of the member state, has a lighter depressive effect on the telecommunications sector. In such a case, the eviction effect would lightly affect the whole economy, rather than just the sector itself. The budgetary realism of the member states is, however (at least in the short term), a constraint on such financing.

Non-profitable activities

Certain activities, which are by nature non-profitable due to their cost, will not be spontaneously offered. A typical case is that of service to clients living in low density areas. These activities will therefore need to be organized if we wish to achieve the goal of availability.

In conformity with the subsidiarity principle, two logical ways are open: either the authority imposes this service on one or more operators, or it opens a public tender. These two methods must be in harmony with the competitive environment.⁷

According to the Communication of 27th November 1996:

... there should not be an automatic assumption that the current universal service provider must continue to provide universal service or to be the only provider... It will remain important within any scheme to ensure that incentives are provided to encourage cost-efficient delivery of universal service... One way of achieving this may be to place elements of universal services out to tender... the tender being awarded to the organization offering to provide a service of specified quality at the lowest level of subsidy.

6. This point will be developed further.

7. Annexe D of the 27 November 1996 Communication (reference above) classes the policy of designation within the 'aspects of national regimes to be definitely carried out at a national level'.

This preoccupation with using market forces to minimize the burden of universal service can also be found in the review. Note that the term 'play or pay' (defined in the review as the fact that operators may reduce their contributions if they

provide universal service) is inappropriate. In fact, such a reduction in contribution is observed also when universal service is imposed on an operator. It is better to speak explicitly of tendering.

Recourse to tendering seems appropriate, at least as soon as competition is effective. This mechanism enables the cost of universal service to be kept as low as possible, thus minimizing the distortion observed in the telecommunications market (which finances the burden). Moreover, this system avoids complicated calculations of net cost. Indeed, this amount should be extracted on the basis of the operator's accounts. In the case of a public tender, the amount is revealed by the procedure itself.

I thus support the review on this point. Neither should we neglect the concrete difficulties of such a tendering procedure. If the member states are expected to advance along this road, some European guidelines would be welcome in a future Communication.

The organization of reductions

A member state may legitimately wish certain users to benefit from reductions. The allowance is defined here as the fact of billing the service to certain users at a price below that which would have been generated by market conditions.⁸ As we see, the nature of the provision is different to that of non-profitable activities outlined above. In particular, operators are required to make a reduction for all users fulfilling certain criteria (eg the disabled and the poor) independent of whether the service is profitable at the full price or not.

This type of provision imposes particular designation and remuneration policies. Indeed, the choice no longer presents itself as in the alternative presented above (obligation *ν* invitation to tender). The review and the 1996 Communication ignore this specific point. A simple example is presented below to clarify these views.

Remuneration policy

The inadequacy, in the case of reductions, of a remuneration policy based on the concept of pure net cost, namely costs of provision of the service minus reduced revenues.

Let us suppose that an operator is obliged to make a 50% reduction for the disabled. Suppose that two of his clients each represent, at full price, a revenue of 100. Assume also that the cost of serving them is identical, let us say they are neighbours, and represents a sum of 70. One of these clients is disabled and benefits from a reduction: to the operator he then represents a revenue of 50 rather than 100. If the operator is compensated for the net cost of this service to the disabled customer, he will receive 20 (cost 70–50 invoiced) from the universal service fund.

This poses two problems. First, the operator will regard the disabled customer differently: he is less profitable. This customer earns him 70 (50 in revenues plus 20 in universal service fund compensation), which is exactly what he costs. His neighbour, however, brings in a profit of 30 (revenues 100 – costs 70). The reader can see that our reasoning functions at other cost levels.⁹ If the disabled person is seen as less

profitable, then the operator will be less interested in attracting his custom. This is certainly an undesirable effect which risks rebounding against the measure's primary objective.

The second problem is of a methodological nature. Remuneration based on the net cost involves knowing the exact cost of serving each customer entitled to a reduction.

8. These conditions include elements of policy such as price regulation.

9. If the cost were 40, the fund would not intervene because, with a profit of 50, there would no longer be a net cost. The disabled client would generate a profit 10 (50–40) and the other client a profit 60 (100–40), that is, more than the first.

This is practically impossible, involving as it does periodically reviewable accounting hypotheses based on the cost of the average privileged customer.

We may respond to both these objections by taking rather the actual value of the reduction as the sum to be remunerated. This sum is directly observable and renders all customers equally desirable in the eyes of the operator. In other markets where subsidies are organized, this rule prevails.

The review does not address this point. With regard to the remuneration issue, the Communication of 27th November 1996 only refers to the net cost, without distinguishing the nature of the services (geographical universal service *ν* reductions) under provision. Belgian law, for instance, currently uses a pure net cost approach.

Designation policy

Let us now turn to designation policy. As soon as this remuneration concept (based on the difference between the full price and the reduced one) is introduced, it goes without saying that all operators must have access to all clients benefiting from these particular tariff schemes. Without this, there would be discrimination amongst operators.

Our reasoning leads us therefore to a system of general subsidies: under this system all consumers may choose their operator who earns the full revenue, the fund compensating for the difference between the full price and the reduced one. Such a system guarantees the interests of both customers and operators. This conclusion should not astonish us, it takes us back to the practice observed in free competitive markets. Surprisingly, the review is not explicit on this point.

We thus consider that the subsidiarity principle should not prevail in this practical side of the organization of reductions for the poor and the disable. This would not affect the liberty of the member states in deciding the field of application and the range of such reductions.

Funding policy

Within respect of the European rules, it is conceivable that a member state might finance the entirety of its universal service from within its own budget, without recourse to the telecommunications sector. This is probably unlikely to happen. One could again raise here a contradiction between the strictly budgetary considerations of a member state and the more general concern of collective efficiency. Thus, it will be appropriate, when the time comes, to re-examine the rationale underlying such intra-sector financing. One feature of the telecommunications sector, which probably justifies such a system, would seem to be its history: public monopolies used to finance their non-profitable activities, even paying a rent to the state.

As soon as an intra-sector financing scheme is to be set up, one has to examine how such a scheme would be consistent with the competitive environment. This important point is not addressed in the review. Here again, perhaps the subsidiarity principle should be questioned.

As soon as a universal service fund is set up, two issues should be studied: the tax (or participation) rate and the fiscal base.

The tax rate

Concerning the tax rate, the concerns are its level and the point at which it is applied. These points merit particular attention. It seems that certain naive views could give rise to lame national systems – strong grounds for advocating a tax rate which is known *ex ante*.

A hypothetical example enables us to illustrate this point. Suppose that the cost of universal service (to be financed from the telecommunications sector) stands at 10. The contributive capacity – that which we shall now call the revenue – of the (only) two operators is 400 and 600 respectively, a total of 1000.¹⁰ The calculation for each operator's contribution must respect the following principles: 10 must be effectively mobilized and in application of the principle of non-discrimination, the contributions must be proportional to the contributive capacities (operators participate on the basis of the proportion of their revenue to the total revenue). These two principles generate contributions of 4 ($10 \times 400/1000$) and 6 ($10 \times 600/1000$).

Superficial understanding of this mechanism might lead one to believe, owing to the application of the two principles mentioned above, that the contributions have been determined without any tax rate having been fixed. A closer examination of the figures will however reveal that each operator has been taxed at 1%, which is in fact the sum to be financed (10), divided by the total tax base (1000).

The question now arises of just when to announce the tax rate. If the definitive tax rate is announced after definitive computation of the net cost of universal service, fiscal uncertainty will prevail and will weigh on both the operators and the consumers. Such a solution is not normally applied in fiscal matters. This uncertainty represents a hurdle to new market entrants.

In accordance with the principle of legal security, and in order to avoid any economic uncertainty at a time when operators are busy making their plans (eg tariffs, production and investment policy), the tax rate should be announced before the beginning of the accounting exercise. Such a method does however have a downside: the rate could have been wrongly estimated. The financing of the entirety of the universal service by the sector itself would then not be assured. A margin of security will thus necessarily fall to the member state budget. This pleads in favour of correct forecasts and, in particular, of conditioning the operator's remuneration to provisional calculations.¹¹

The question of the universal service tax rate is not addressed in the review. However, there are strong arguments for enshrining the principle of an *ex ante* tax rate in the new Directive (or at least that the text should address the point of a maximum difference between provisional and definitive tax rates). Again, in order to prevent distortionary systems, the exercise of the subsidiarity principle in the construction of national funding systems could be limited.

The fiscal base

Concerning the fiscal base, the question could be formulated as follows: how to levy an indirect tax in the telecommunications sector without distorting competition? The European Union leaves this question to the member states. In its Communication of 27 November 1996 it stipulates that national schemes should provide procedures for identifying clearly the market upon which such activity is measured and determine, in a transparent manner, the basis for contribution for each eligible organization to contribute. The subsidiarity principle is actually explicitly mentioned in this Communication. The review itself does not address this question of the fiscal base. The subsidiarity principle will thus continue to prevail in this matter.

More precise guidelines are needed in the future universal service directive. Indeed, the question of raising an

10. The issue of the fiscal base will be dealt with below.

11. This is not envisaged under some national schemes.

indirect tax in a competitive environment is not a new one. As soon as a clear list of taxed activities is set up, one has to answer several classic questions. Which indicator should be used as a fiscal base – a volume or a value? If a value is chosen, is profit better (from a practical and economic point of view) than revenue and should that be gross or net revenue? How should double contributions be prevented? Which territorial criterion should be applied given that several member states are allowed to levy such a tax?

The Communication allows member states to answer these questions, applying such principles as transparency, non-discrimination and proportionality. Arguably the best solution is a harmonized system, leaving to the member states the ability of fixing the tax rate level (according to the extent of their universal service policy).¹² More precisely, it seems to us that one solution dominates:¹³ that of an indirect tax (based on a list of activities), bearing on the value of transactions, using deductions, using the actual destination of the activity as the criterion for its attachment to a national funding scheme.¹⁴

Furthermore, the characteristics of the tax that have been evoked above are those of value added tax (VAT). This is hardly astonishing: if the different national indirect taxes have been replaced by VAT, this is in virtue of those same principles. It therefore seems pertinent to study the feasibility of the following solution very seriously: the adjunction of the universal service tax to the VAT or, in other words, an increase in VAT on certain activities (eg voice telephony, interconnection and leased lines) and an appropriation of the sums levied to the universal service fund.

There are several advantages to this solution. First, a new funding mechanism need not be put together piecemeal by any member state: the universal service fund could be immediately operational. Thus, member states would have one less obstacle to the autonomous enactment of universal service policy. Less subsidiarity in fiscal matters would mean more freedom of action. The principle of proportionality, according to which a system of financing will not be applied unless the sums to be mobilized are significant, demonstrates sufficiently the degree to which the construction of such a system limits the free action of the member states.¹⁵ The absence of the fund prohibits remuneration of non-profitable activities and thus hobbles the corrective powers of the authorities.

Furthermore, if such a harmonization were to be imposed from the first, costly errors, such as Europe has known in the past, could be avoided. Indeed, specific indirect taxes have over time been suppressed in favour of the single VAT system. Let us learn from this experience not to attempt to rewrite history. This important question of the fiscal base, ignored in the review, should be analysed soon. A harmonized solution would surely speed up the enactment of national universal service policies.

This idea of increasing VAT has the merit of illuminating the question of intra-sector financing that we have already raised. Stated otherwise, for financing universal service, would it be better to implement a specific (applied to telephone services and networks) rise in VAT or an overall – and therefore smaller – rise in VAT? The question will need to be resolved in time. It clearly confronts the collectivity with its own needs and arbitration.

An implicit choice to question

It has been objected that budgetary realism prevents a recourse to the general budget of the states (and thus, in particular, an overall increase in VAT). Admitting this we may

12. For competition concerns, the tax rate levels should however not be too different.

13. This may be the result of an economic reasoning which would be too technical to be presented here.

14. This refers to deductions as in the VAT system.

15. This principle is taken up in the 27 November 1996 Communication.

observe that an intermediary solution exists, a compromise between the considerations of collective efficiency and budgetary realism. This involves disconnecting the scope of the universal service from the fiscal base.

This implicit link between the scope and the fiscal base is not questioned in the review. Universal service policy (related to some specific services) could be financed by levying a tax (or a simple increase in VAT) bearing on a more extended list of services, without touching the economy as a whole. One would thereby have abandoned the implicit principle of a parallel enlargement of both the scope and the fiscal base. Convergence within the telecommunications sector also begs for a wide fiscal base. Indeed, it will be increasingly difficult to isolate voice telephony from certain other services.

Conclusion

The universal service issue generates many debates. On one hand, without a considerable extension of the scope of the service, we run the risk of developing a two-speed society, and European and national legislations need to be highly anticipatory to avoid such a situation developing. On the other hand, an over-ambitious universal service policy, by weighing primarily on telecommunications operators, would have perverse effects, and we should therefore rely on market forces to achieve universal service objectives.

In my opinion, the universal service question cannot be subsumed into a debate on the supposed efficacy of market forces: it is far more a societal debate. It is for society itself to define the priorities, knowing that, even if financed from within the telecommunications sector, a universal service policy carries a social cost. On the other hand, member states must have the possibility to engage different policies designed to match their own specific national situation.

But the debate on the scope of the universal service, as presented in the review, seems to be taking place at a time when important practical questions have not yet been resolved. Most of these questions are not mentioned in the review. These undecided issues risk rendering in vain certain discussions on the enlargement of the scope itself. Actually, the question may have to be rephrased: from the moment when a universal service policy should really be enacted, will the instruments then in place be ready to provide a rapid and effective response? We believe that significant legal improvements could be made at European and national levels.

The European texts lay down the outlines of the national schemes, leaving a large space for the exercise of subsidiarity. This principle should be questioned. Paradoxically, as this article has shown, this liberty of action accorded to the member states in some matters may give rise to several problems. Thus, it suggests the introduction, in the future directive, of some imperative rules concerning the funding policy and in the organization of reductions.

Important steps have been taken in developing instruments that permit member states to carry out a universal service policy. From the moment that competition is effective, the efficiency of this policy will be judged according to the strength of its weakest link. It seems to us then, that a further effort of reflection must needs be undertaken at national and European levels. To this end, the various national experiences may serve to mutually enrich one another. Without such a mutual effort of reflection, there is a sizeable risk that universal service policy will either never see the light of day, or see it but faintly.